

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims

1. (currently amended) A method for controlling valve operation of valves coupled to a cylinder of an internal combustion engine with a piston, the method comprising:

using at least a sensor coupled to the engine to indicate potential interference between the piston and the valve when the valves are operating in a condition where such interference is possible;

determining whether the sensor has degraded; and

in response to a determination that said sensor has degraded, adjusting operation of the valves to a condition where there is no potential for interference **and adjusting engine torque to compensate for a torque effect of said valve adjustment.**
2. (original) The method of claim 1 wherein said adjusting operation includes retarding cam timing.
3. (original) The method of claim 1 wherein said adjusting operation includes operating a low valve lift.
4. (cancelled)

5. (original) The method of claim 1 wherein said sensor provides information in determining cam timing.

6. (original) The method of claim 1 wherein said sensor provides information in determining valve lift.

7-14. (cancelled)

15. (currently amended) A computer storage medium having instructions encoded therein for controlling valve operation of valves coupled to a cylinder of an internal combustion engine with a piston, the engine in a powertrain in a vehicle on the road, said medium comprising:

code for indicating potential interference between the piston and the valve;

code for selecting at least one of valve timing and valve lift based on a direction of valve timing change and valve lift change and further based on sensor or actuator degradation; ~~and~~

code for adjusting said selected one of valve timing and valve lift to reduce said potential for interference in response to said indication; and

code for adjusting engine torque to compensate for a torque effect of said adjusting.

16-17. (cancelled)

18. (currently amended) A computer storage medium having instructions encoded therein for controlling valve operation of valves coupled to a cylinder of an internal combustion

engine with a piston, the engine in a powertrain in a vehicle on the road, said medium comprising:

code for indicating potential interference between the piston and the valve;

code for selecting at least one of valve timing and valve lift within an engine event from said indication; ~~and~~

code for adjusting said selected one of valve timing and valve lift to reduce said potential for interference in response to said indication; and

code for adjusting engine torque to compensate for a torque effect of said adjusting.

19. (currently amended) A computer storage medium having instructions encoded therein for controlling valve operation of valves coupled to a cylinder of an internal combustion engine with a piston, the engine in a powertrain in a vehicle on the road, said medium comprising:

code for indicating potential interference between the piston and the valve; ~~and~~

code for adjusting both of said valve timing and valve lift to reduce said potential for interference in response to said indication; and

code for adjusting engine torque to compensate for a torque effect of said adjusting.

20. (new) The method of claim 1 wherein throttle position is adjusted to compensate for said torque effect.

21. (new) The method of claim 1 wherein ignition timing position is adjusted to compensate for said torque effect.